

EXECUTIVE SUMMARY

The District of Columbia Department of Transportation (DDOT) is conducting a study investigating potential traffic management and truck management improvements along the Military Road/Missouri Avenue corridor in northwest and northeast Washington, D.C., in response to citizens' concerns. The consulting firm, The Louis Berger Group, Inc. (Consultant) is conducting the study with the direction and assistance from DDOT staff. This report refers to the team of the Consultant and DDOT staff as the "Study Team."

The main goals of the study are to examine existing and future traffic conditions in the study area and to determine short-term and long-term traffic management and infrastructure improvements to reduce speeding and traffic congestion, especially during peak morning and evening travel hours, reduce truck traffic, improve traffic and pedestrian safety and protect surrounding residential streets from traffic impacts. The boundary of the study area is defined by an area four blocks north and south of the Military Road/Missouri Avenue corridor.

The study would not have been possible without the assistance of area residents and the Advisory Neighborhood Commission (ANC). The Study Team held meetings with area residents to discuss transportation issues and preliminary improvement options. The area residents provided additional input via email and regular correspondence.

The study was initiated in June, 2003 and will be completed by early 2004. This draft report addresses issues and deficiencies in the transportation infrastructure with improvement options in a draft format. It also provides a summary assessment of future development impacts and the effectiveness of the proposed recommendations in mitigating the impacts of future traffic growth. Upon receipt of comments from DDOT and study area residents, this draft report will be revised and a final receipt will be issued.

The Study Team first met with residents on both the east and west sides of Rock Creek Park to identify issues and concerns. Data collection took place in June, August, and September 2003 to gain and expand an understanding of existing conditions in the Military Road/Missouri Avenue Transportation study area. The quantitative assessment of existing conditions based on collected data was combined with field evaluations throughout the study area during peak and off-peak periods. Both quantitative assessment and field evaluation efforts were also used to verify some transportation issues and concerns raised by residents in the study area. Following are the main findings of the study:

- The Military Road/Missouri Avenue study corridor is approximately 4.4 miles long, beginning at Western Avenue and ending at Blair Road. The name of the road changes from Military Road to Missouri Avenue at Georgia Avenue N.W. and to Riggs Road at North Capitol Street N.W.
- A portion of the Military Road/Missouri Avenue corridor (between Nebraska Avenue and Georgia Avenue) is designated as part of the National Highway System. The National Highway System is designed to provide access between arterials and major ports, airports, public transportation facilities, and other intermodal transportation facilities in urban area throughout the nation.

Public Transportation

- The Washington Metropolitan Area Transit Authority (WMATA) provides bus service east of Nebraska Avenue along the Military Road/Missouri Avenue allowing extensive north-south travel movement between the District of Columbia and Montgomery County. WMATA also provides rail service to and from the Friendship Heights area at the Western Avenue intersection. The Fort Totten Metro station is also located in the vicinity of the study area.
- The majority of Metrorail patrons, 64 percent, walked to the Friendship Heights station and 14 percent of patrons arrived at the station via Metrobus or Ride On bus service in Montgomery County, Maryland.
- Less than 50 percent of the 30 bicycle racks and 73 percent of the 22 lockers provided by WMATA at the Friendship Heights station are utilized.

Traffic Volume

- Average daily weekday vehicular volumes on Military Road/Missouri Avenue are relatively uniform across the corridor in the range of 27,200 vehicles per day, except west of Nebraska Avenue where the number of lanes decreases from four lanes to two lanes and the volume decreases to approximately 13,900 vehicles per day.
- Average Saturday vehicular volumes did not fluctuate compared to the weekday traffic, but average Sunday traffic volumes decreased by 18 to 41 percent throughout the corridor.
- The morning and afternoon peak-hours were from 7:45 - 8:45AM and from 5:15 - 6:30 PM.
- The study corridor carries a significant level of through-traffic in both directions.
- The peak hour directional traffic movement is westward during the morning and eastward during the afternoon peak hour.
- Auto traffic makes up between 80 percent and 93 percent of all traffic on the recorded streets.
- The highest volume of heavy trucks (approximately 500 trucks per day) was observed on the west side of Rock Creek Park, primarily westbound.
- The highest volume of light trucks which includes FedEx and UPS deliveries was recorded near the Kansas Avenue intersection with over 2,200 trucks per day. Light truck traffic was high for most of data collected, ranging from 729 to 2,206, except near 43rd Street (from 276 to 333) where the number of lanes on Military Road decreased from four to two lanes.

Speed

- Vehicle speeding is a significant problem in the study area. The most serious speeding was recorded near 7th Street where 15 percent of the traffic exceeded the speed limit by 14 mph westbound and 17 mph eastbound.

Travel Time (Average Speed)

- The average driving speed on Military Road/Missouri Avenue was slightly slower than the posted speed limit except within the Rock Creek Park section. In Rock Creek Park, it was noted that the average speed of westbound vehicles was almost at the speed limit, but eastbound vehicles exceeded the speed limit by 5 to 8 mph.

Queues

- The most critical queuing (back-ups) occurs at the Georgia Avenue intersection on Military Road/Missouri Avenue during the afternoon peak hour with an average of 41 queued vehicles. Similarly, eastbound afternoon peak hour traffic at New Hampshire Avenue and North Capitol Street averages 39 queued vehicles.

Safety

- A significant number of accident incidents have been reported at major arterial and collector intersections. The intersection of Missouri Avenue and 3rd Street had the highest number of accidents, totaling 41 cases during the three year period from 2000-2003. The Connecticut Avenue intersection had 36 reported accident incidents and New Hampshire Avenue had 32 incidents in the last three year periods.
- The 9th Street intersection is an unsignalized intersection with a high accident incident rate. Over the last three years, a total of 27 incidents occurred at this intersection, which in most cases, involved a right-angle crash.
- The Military Road/Missouri Avenue corridor is mostly residential. A high volume of pedestrians crossing Military Road and Missouri Avenue were observed between Western and Connecticut Avenue, and between 14th and 8th Streets. The proximity to the Friendship Heights Metrorail station and Metrobus service at Western/Wisconsin Avenues and Connecticut Avenue and commercial activity at Connecticut Avenue explain the first case. Commercial activity at Georgia Avenue and proximity to the Military Road School (at 13th) are the major contributing factor for the second case.
- Crossing guards at 13th Street (signalized), Colorado Avenue/Georgia Avenue (signalized), and 2nd Street (non-signalized) are on duty during the school year from 7:30AM to 9:30AM and from 3:00PM to 4:00PM to assist school children as well as other pedestrians during peak periods.

Parking

- A total of 227 on-street parking spaces were recorded along the Military Road/Missouri Avenue corridor. Most on-street parking spaces were available on the eastbound side of the roadway (181 spaces) with only 46 spaces provided westbound between 13th and 14th Streets. A sizable (over 3,000 spaces) parking lot/garage is located in the Friendship Heights area, at the western end of Military Road at Western Avenue.

- Parking availability appears to be adequate throughout the study area. The on-street parking utilization rate was highest (over 90 percent) on the section of Military Road close to the Friendship Heights Metrorail station. Garage and lot parking utilization appears to be higher at the facility with the entrance on Wisconsin Avenue, at facilities closest to office buildings, and on streets adjacent to Wisconsin Avenue.

Existing Conditions

- Several intersections in the study area are operating at undesirable levels of service (LOS), E and F, during the morning and afternoon peak hours. The worst level of service observed at a signalized intersection was at the Georgia Avenue intersection. The average delay time at this intersection was over 2 minutes during morning and afternoon peak hours, which is longer than one signal cycle length. Levels of service for intersections at 13th Street (morning peak hour) and 41st Street (afternoon peak hour) reach E during the peak hour, causing an average delay time of approximately one minute and over one minute, respectively.
- One of two examined unsignalized intersections (at 43rd Street and 9th Street), the 9th Street had almost one minute average delay for the minor street during the afternoon peak hours.

Future Conditions

- Background traffic growth and new development proposals in the Friendship Heights area will increase traffic volumes along the western portion of Military Road, west of Rock Creek Park.
- Levels of service for the intersections at Nebraska Avenue and Connecticut Avenue during the morning peak hour and Kansas Avenue, 13th Street, Reno Road, and 41st Street during the afternoon peak hour are anticipated to deteriorate to LOS E or F, if no improvements are made.
- Some of the intersections are currently operating at acceptable levels of service. However, without significant improvements, it is projected that the intersections at Nebraska Avenue and Connecticut Avenue during the morning peak hour and Kansas Avenue, 13th Street, Reno Road, and 41st Street during afternoon peak hour will deteriorate to LOS E or F.
- The proposed improvements will improve LOS to C or better at most intersections. An average delay experienced at Georgia Avenue will be significantly reduced by as much as 88 percent.

The Study Team met with area residents and compiled a comprehensive list of transportation issues for the study area, followed by extensive data collection, field investigations, and assessments of existing conditions. These issues are summarized in Exhibits E1A through E1D. The Study Team then developed suggested improvements and met again with area residents to obtain comments. Exhibits E2A through E2D show the revised recommendations to improve safety and transportation operations in the study area. The recommendations in this study are

mainly intended to address traffic and pedestrian safety along the Military Road/Missouri Avenue corridor and reduce excessive vehicular speeds throughout the corridor and improve the condition of critical conflict points. However, if the recommended measures do not reduce excessive speeding and accident incidents, DDOT will revisit the corridor and implement additional traffic calming measures where necessary.

**Exhibit E1A: Transportation Issues -- Between Western Avenue and Nebraska
Avenue/Broad Branch Road**

To view click on List of Exhibits

**Exhibit E1B: Transportation Issues -- Between Nebraska Avenue/Broad Branch
Road and Oregon Avenue/Glover Road**

To view click on List of Exhibits

Exhibit E1C: Transportation Issues -- Between 16th Street and Georgia Avenue

To view click on List of Exhibits

Exhibit E1D: Transportation Issues -- Between and Georgia Avenue and Blair Road

To view click on List of Exhibits

**Exhibit E2A: Transportation Improvement Recommendations – Between Western
Avenue and Nebraska Avenue/Broad Branch Road**

To view click on List of Exhibits

Exhibit E2B: Transportation Improvement Recommendations – Between Nebraska Avenue/Broad Branch Road and Oregon Avenue/Glover Road

To view click on List of Exhibits

**Exhibit E2C: Transportation Improvement Recommendations -- Between 16th
Street and Georgia Avenue**

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**Exhibit E2D: Transportation Improvement Recommendations -- Between and
Georgia Avenue and Blair Road**

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